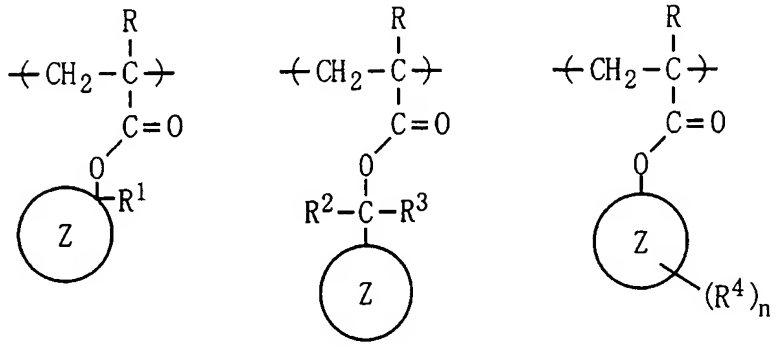
AMENDED CLAIM SET:

1. (original) A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group, wherein the resin has a weight-average molecular weight of 3000 to 15000 and has a content of polymer fractions each having a molecular weight exceeding 40000 of 4 percent by weight or less of the total resin.

2. (original) The photoresist resin according to claim 1, wherein the constitutional repeating unit A is at least one selected from constitutional repeating units of following Formulae (Ia), (Ib) and (Ic):

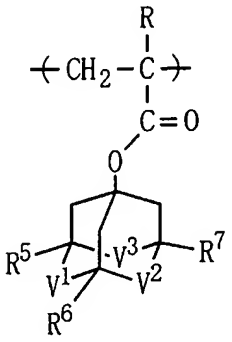


(Ia) (Ib) (Ic)

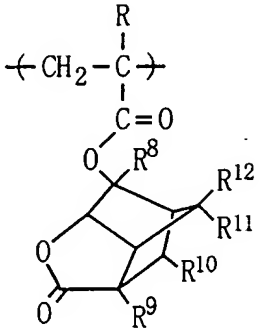
wherein Ring Z is an alicyclic hydrocarbon ring having six to twenty carbon atoms which may be substituted; R is hydrogen atom or an alkyl group having one to six carbon atoms; R^1, R^2 and R^3 may be the same as or different from one another and are each an alkyl group having one to six carbon atoms; R^4s are substituents combined with Ring Z, may be the same as or different from each other and are each oxo group, an alkyl group, a hydroxyl group which may be

protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group, wherein at least one of nR^{4}s is a -COOR^a group, wherein R^a is a tertiary hydrocarbon group which may be substituted, tetrahydrofuranyl group, tetrahydropyranyl group or oxepanyl group; and n is an integer of 1 to 3.

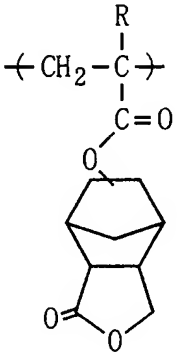
3. (original) The photoresist resin according to claim 1 or 2, wherein the constitutional repeating unit B is at least one selected from constitutional repeating units of following Formulae (IIa), (IIb), (IIc), (IId) and (IIe):



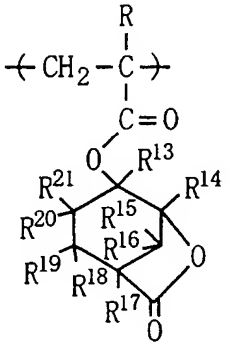
(IIa)



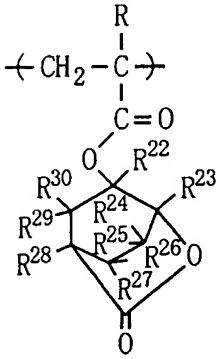
(IIb)



(IIc)



(IId)



(IIe)

wherein R is hydrogen atom or an alkyl group having one to six carbon atoms; R^5, R^6 and R^7 may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; V^1, V^2 and V^3 may be the same as or different from one another and are each $-CH_2-$, -CO- or -COO-, wherein (i) at least one of V^1, V^2 and V^3 is -CO- or -COO-, or (ii) at least one of R^5, R^6 and R^7 is a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R^8, R^9, R^{10}, R^{11} and R^{12} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20} and R^{21} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; and R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29} and R^{30} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group.

4. (previously presented) A photoresist resin composition, as a solution comprising the photoresist resin of claim 1 and a light-activatable acid generator in a solvent.

5. (previously presented) A process for preparing a photoresist resin composition, comprising the step of dissolving the photoresist resin of claim 1 in a solvent.

6. (new) A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group,

wherein the resin

(i.) has a weight-average molecular weight of 3000 to 15000 and

(ii.) has a molecular weight distribution (Mw/Mn, wherein Mw is weight-average molecular weight and Mn is number-average molecular weight) of from 1.1 to 3.5 and

(iii.) has a content of polymer fractions each having a molecular weight exceeding 40000 of 4 percent by weight or less of the total resin.

7. (new) The photoresist resin of claim 6, wherein the weight-average molecular weight is from 5000 to 13000.